



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

It lived with me about a Fortnight, but I could never perceive that it beat, after it was confin'd in the Box.

II. *Observations of the Eclipses of the first Satellite of Jupiter, communicated by his Excellency William Burnet, Esq; Governor of New York, F. R. S.*

These Observations were made in the Fort of *New York*, for determining the Longitude of that Place by us,

William Burnet, Cadwallader Colden, James Alexander, and calculated by Cadwallader Colden.

The Latitude of the Fort, was formerly determin'd to be $40^{\circ} 40'$.

August the 9th, 1723.

T IME of Emerſion at <i>London</i> , according to Mr. <i>Pound's</i> Tables,	<i>H.</i>	<i>ʳ</i>	<i>"</i>
reduced to apparent Time	16	09	25
Time as it was ſeen at <i>New York</i>	11	10	43
Difference of Meridians	4	58	42

I neglected to write down the Altitudes which were taken of the Sun, for correcting the Clock.

August

August the 25th.

Altitude of the Sun's Upper Limb.				Time by the Clock.			Time by Calculat.		
				H.	'	"	H.	'	"
Sun's Declin.	54	30	00	10	17	52	10	17	28
6° 55'	51	13	30	10	33	10	10	32	8
Aug. 26.	46	24	00	9	57	40	9	56	25
Sun's Declin.	47	50	00	10	8	22	10	6	57
6° 33'									

	H.	'	"
Time of Emerfion by Mr. <i>Pound's</i> Tables	14	31	25
Equation of Time to be added	00	01	22
	14	32	47
Time observ'd by the Clock	09	35	14
The fame corrected	09	34	14
The Difference of Meridians	04	58	33

This I look upon as the most distinct and best Observation.

September the 10th.

Altitude of the Sun's Upper Limb,			Time by the Clock,			Time by Calculat.		
	°	'	H.	'	"	H.	'	"
Sun's Declin.	33	21	09	01	00	09	00	16
49'	34	06	09	06	01	09	04	49
Sept. 17th	17	17	04	21	40	04	21	44
Sun's Declin.	15	15	04	33	05	04	32	47
1° 54'								

Time

(164)

Time of Emerfion by the Clock <i>Septem-</i>	<i>H.</i>	<i>'</i>	<i>"</i>
<i>ber 10th</i>	08	00	10
Time of Emerfion by Mr. <i>Pound's</i> Tables	12	50	36
Equation of Time to be added	00	06	54
	<hr/>		
	12	57	30
Corrected Time at <i>New York</i>	07	59	08
	<hr/>		
Difference of Meridians	04	58	22

June 26th, 1724.

Altitude of the Sun's Upper Limb.	Time by the Clock.	Time by Calculat.
<i>O</i> <i>'</i>	<i>H.</i> <i>'</i> <i>"</i>	<i>H.</i> <i>'</i> <i>"</i>
<i>June 20th,</i> { 56 44	09 48 03	09 43 37
<i>Sun's Declin.</i> { 60 27	10 09 40	10 05 05
23 . 7		
<i>June 27th,</i> { 63 31	10 27 43	10 27 05
<i>Sun's Declin.</i> { 65 21	10 40 00	10 39 27
22 . 26.		

<i>June the 26th,</i> Time of Immerfion by	<i>H.</i>	<i>'</i>	<i>"</i>
the Clock	11	41	12
Time of Immerfion by Mr. <i>Pound's</i> Tables	16	43	02
Equation of Time to be fubtracted	00	04	26
	<hr/>		
	16	38	36
Time at <i>New York</i> corrected	11	40	15
	<hr/>		
Difference of Meridians	04	58	21

The Mean of all thefe Observations is 4^h 58' 30'' which agrees to 3'' with that Observation, which I thought the moft exact, and therefore the Longitude of *New York*, is nearly 74° 57' 30'' West from *Lon-*
don.

The

The Variation of the Magnetick Needle was observ'd, this Year, to be $7^{\circ} 20'$ West. *Philip Wells*, Surveyor General of this Province, in the Year 1686, observ'd it to be $8^{\circ} 45'$; by which, it appears to decrease about $1^{\circ} 25'$ in 38 Years, or a little more than two Minutes in a Year.

III. *A New Contrivance for taking Levels, by the Reverend John Theophilus Desaguliers, L. L. D.*
R. S. S.

THAT the Air Thermometer is also a Barometer, has been observ'd long ago; and, because the Liquor in it will rise and fall, as well by the Change of the Weight of the Air, as by the Air's Rarefaction by Heat and Cold, this Instrument has no longer been made use of as a Thermometer, and, in its stead, Spirit of Wine Thermometers, hermetically seal'd, have been us'd ever since.

But, because the Errors of the Air Thermometer (or its Difference from the Spirit Thermometer) depend only upon the Change of the Weight of the Atmosphere from what it was, when the two Thermometers were set at the same Degree of their respective Scales; the late Dr. *Hook* contriv'd an Instrument, that he call'd a Marine Barometer, made of a Combination of the two abovemention'd Thermometers; in such Manner, that a third Scale being made use of, to observe the Difference of the two Thermometers, thereby the Change of the Air's Gravity, and consequently Storms, Rains, and fair Weather, might be foretold at Sea, where the Quicksilver Barometer becomes uselefs by the shaking of the Ship.